UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,992	11/26/2003	Allen Yang	105479-58452 (644-034)	7994

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EXAMINER
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ART UNIT	PAPER NUMBER
2157	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/723,992	YANG ET AL.
	Examiner	Art Unit	
	MICHAEL C. LAI	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 November 2003</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-48</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>2-48</u> is/are rejected.
7)☒ Claim(s) <u>29-31,33-35,37-38,48</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>26 November 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>4 jun 2004</u>.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to communication filed on 11/26/2003.

Claims 2-48 have been examined.

Claim Objections

2. Claims 29-31, 33-35, 37-38, and 48 are objected to because of the following

informalities: "A system" should be "An apparatus."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 2, 8-15, 17, 22-23, 25-27, 33-39, 41, 45-47 are rejected under 35

U.S.C. 102(e) as being anticipated by Sivertsen (US 7,260,624 B2, hereinafter

Sivertsen).

Regarding claim 2, Sivertsen discloses a remote management system [FIG.

1] comprising:

a computer workstation including a keyboard, cursor control device and

video display [120, 132, 130, 134 FIG. 1];

at least one remote device for producing video signals [102 FIG. 1];

a remote management unit coupled to said workstation and said at least

one remote device [110 Interaction Device FIG. 1; **Note that from "120**

Remote Computer" point of view, 110 Interaction Device is a remote

management unit];

first communication means for providing bi-directional communication

between said remote management unit and said workstation [FIG. 1, Network

118; col. 11, lines 512]; and

second communication means for providing bi-directional communication

between said remote management unit and said at least one remote device

[FIG. 1, cable between 102 and 110];

wherein said remote management unit enables serial and/or keyboard,

video, mouse (KVM) control of said at least one remote device [114, 116, 112

FIG. 1].

Regarding claim 8, Sivertsen further discloses wherein said remote

management unit includes at least one header circuit for selective

communication between at least one KVM port of said remote management unit

[232 Keyboard Mouse Controller FIG. 2] and at least one video port of said at

least one remote device [204 Video Buffer FIG. 2].

Regarding claim 9, Sivertsen further discloses wherein said header circuit

includes a video switch, and at least one receiver transmitter circuit, wherein said

receiver transmitter circuit converts parallel and serial signals [FIG. 2 and col. 5 line 49 through col. 6 line 49].

Regarding claim 10, Sivertsen further discloses wherein said remote management unit includes at least one framer grabber circuit for digitizing video signals [206 FIG. 2].

Regarding claim 11, Sivertsen further discloses wherein said framer grabber circuit converts analog video signals to digital video signals [col. 5 line 64 through col. 6 line 7].

Regarding claim 12, Sivertsen further discloses wherein said remote management unit includes a frame grabber circuit for correcting an image produced by said video signals [col. 8, lines 32-40].

Regarding claim 13, Sivertsen further discloses wherein said remote management unit includes at least one local KVM port [232, 204 FIG. 2].

Regarding claim 14, Sivertsen further discloses wherein said remote management unit includes at least one video processor circuit for compressing video signals [202, 206 FIG. 2 and col. 8, lines 60-67].

Regarding claim 15, Sivertsen further discloses wherein said video processor circuit includes at least one video receiving circuit for receiving video signals from at least one CPU [202 ADC and 204 Video Buffer FIG. 2].

Regarding claim 17, Sivertsen further discloses wherein said video processor circuit includes at least one frame buffer circuit for storing video frames indicative of said video signals [204 Video Buffer FIG. 2].

Regarding claim 20, Sivertsen further discloses wherein said video processor circuit includes at least one memory circuit coupled to said microprocessor for storing data [212 FIG. 2 and col. 6, lines 8-19].

Regarding claim 22, Sivertsen further discloses wherein said remote management unit includes at least one modem module for demodulating signals received by a modem [col. 7, lines 28-31].

Regarding claim 23, Sivertsen further discloses wherein said first or second communication means is selected from the group consisting of a LAN, a WAN, a wireless connection, a modem, a direct modem connection, and the Internet [col. 3, lines 50-55; col. 7, lines 28-44].

Regarding claim 25, Sivertsen discloses an apparatus [110 Interaction Device FIG. 1. **Note that from "120 Remote Computer" point of view, 110 Interaction Device is a remote management unit**.] for coupling a workstation to one or more remote devices, said apparatus comprising:

a communication circuit for transmitting signals to and receiving signals from said workstation via a communication medium [226 Network Interface FIG. 2];

a serial communication circuit for transmitting serial data to and receiving serial data signals from one or more of said remote devices [202 ADC and 204 Video Buffer FIG. 2];

a keyboard, video, mouse (KVM) circuit for transmitting and receiving

KVM signals from one or more of said remote devices [232 Keyboard Mouse

Controller and 204 Video Buffer FIG. 2]; and

a central processing circuit for controlling transmission of said signals

between at least one said communication circuit, said serial communication

circuit and said KVM circuit [220 Processor FIG. 2].

Regarding claim 26, Sivertsen further discloses wherein said remote device is

powered by a power source [this is inherent].

Regarding claim 27, Sivertsen further discloses wherein said apparatus is

connected to said power source [712 FIG. 7].

Regarding claim 33, Sivertsen further discloses wherein said apparatus

includes at least one header circuit for selective communication between at least

one KVM port and at least one video port of said remote devices [204 Video

Buffer FIG. 2].

Regarding claim 34, Sivertsen further discloses wherein said header circuit

includes a video switch, and at least one receiver transmitter circuit, wherein said

receiver transmitter circuit converts parallel and serial signals [FIG. 2 and col. 5

line 49 through col. 6 line 49].

Regarding claim 35, Sivertsen further discloses wherein said remote

management unit includes at least one framer grabber circuit for digitizing and

correcting images produced by video signals [206 FIG. 2].

Regarding claim 36, Sivertsen further discloses wherein said framer grabber circuit converts analog video signals to digital video signals [col. 5 line 64 through col. 6 line 7].

Regarding claim 37, Sivertsen further discloses wherein said apparatus includes at least one local KVM port [232, 204 FIG. 2].

Regarding claim 38, Sivertsen further discloses wherein said apparatus includes at least one video processor circuit for compressing video signals [202, 206 FIG. 2 and col. 8, lines 60-67].

Regarding claim 39, Sivertsen further discloses wherein said video processor circuit includes at least one circuit to receive video signals from said central processing circuit [202 ADC and 204 Video Buffer FIG. 2].

Regarding claim 41, Sivertsen further discloses wherein said video processor circuit includes at least one frame buffer circuit for storing video frames indicative of said video signals [204 Video Buffer FIG. 2].

Regarding claim 45, Sivertsen further discloses wherein said apparatus includes at least one modem module for demodulating signals received by modem [col. 7, lines 28-31].

Regarding claim 46, Sivertsen further discloses wherein said communication medium is at least one selected from the group consisting of a LAN, a WAN, a wireless connection, a modem, a direct modem connection, and the Internet [col. 3, lines 50-55; col. 7, lines 28-44].

Regarding claim 47, Sivertsen further discloses wherein said signals transmitted and received by said workstation are at least one control signal selected from the group consisting of keyboard, video, mouse, serial or power [col. 4 line 43 through col. 5 line 9].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-4, 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sivertsen as applied to claim 2, and in view of Leigh et al. (US 7,003,563 B2, hereinafter Leigh).

Regarding claim 3, Sivertsen fails to specifically disclose wherein said workstation controls a power source of at least one of said at least one remote device through said remote management unit. However, Leigh teaches controlling remote device power source via the RMU [col. 2, line 5, "virtual power button"; col. 5 line 62 through col. 6 line 6, "power button"]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Leigh's teaching into Sivertsen's system for the purpose of controlling the power source of remote devices via the RMU, thereby providing a truly total remote management system.

Regarding claim 4, Sivertsen fails to specifically disclose wherein access to said remote management unit by said workstation is controlled by unique passwords or authentication information. However, Leigh teaches security measure for the workstation [col. 13, lines 5-8, "security privileges"]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Leigh' teaching into Sivertsen's system for the purpose of controlling the access to the workstation by implementing unique passwords or authentication information, thereby providing a secure remote management system.

Regarding claim 28, Sivertsen fails to specifically disclose wherein said workstation controls said power source through said apparatus. However, Leigh teaches controlling remote device power source via the RMU [col. 2, line 5, "virtual power button"; col. 5 line 62 through col. 6 line 6, "power button"]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Leigh's teaching into Sivertsen's apparatus for the purpose of controlling the power source of remote devices via the apparatus, thereby providing a truly total remote management system.

Regarding claim 29, Sivertsen fails to specifically disclose wherein access to said apparatus by said workstation is controlled by unique passwords or authentication information. However, Leigh teaches security measure for the workstation [col. 13, lines 5-8, "security privileges"]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to

incorporate Leigh' teaching into Sivertsen's system for the purpose of controlling

the access to the workstation by implementing unique passwords or

authentication information, thereby providing a secure remote management

system.

7. Claims 5 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sivertsen as applied to claim 2, and in view of Watkins (US 2002/0198978 A1,

hereinafter Watkins).

Regarding claims 5 and 30, Sivertsen fails to specifically disclose redundant

power supply. However, Watkins teaches a back-up redundant power supply

[para. 0033]. It would have been obvious to a person of ordinary skill in the art at

the time the invention was made to incorporate Watkins' teaching into Sivertsen's

system for the purpose of preventing total power loss by using a redundant

power supply, thereby providing a reliable power supply system.

8. Claims 6-7 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Sivertsen as applied to claim 2, and in view of DeAnna et al. (US

2003/0084056 A1, hereinafter DeAnna).

Regarding claims 6 and 7, Sivertsen fails to disclose the option menu circuit

including identification of said at least one remote device. However, DeAnna

teaches in a remote management system uses a convenient menu to change a

server device [para. 0047]. It would have been obvious to a person of ordinary

skill in the art at the time the invention was made to incorporate DeAnna'

teaching into Sivertsen's system for the purpose of providing a menu driven

environment by using an option menu including identification of remote device, thereby providing a more user friendly system.

Regarding claims 31 and 32, Sivertsen fails to disclose the option menu circuit including identification of said at least one remote device. However, DeAnna teaches in a remote management system uses a convenient menu to change a server device [para. 0047]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate DeAnna' teaching into Sivertsen's system for the purpose of providing a menu driven environment by using an option menu including identification of remote device, thereby providing a more user friendly system.

9. Claims 16, 18-19, 21, 40, 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sivertsen as applied to claim 2, and in view of Coleman (US 2004/0042547 A1, hereinafter Coleman).

Regarding claims 16 and 40, Sivertsen teaches substantially all the limitation in claim 14, but fails to disclose wherein said video processor circuit includes at least one pixel pusher circuit for storing red, green and blue video signal components of said video signals. However, Coleman teaches using a pixel pusher 221 to store A/D converter 201 outputs pixels representing the red component, green component and blue component of the digitized signal [FIG. 2 and para. 0118]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Coleman' teaching into Sivertsen's system for the purpose of storing red, green and blue video signal

components of video signals by using a pixel pusher, thereby providing a system

of effectively digitizing and compressing the video output of a computer such that

it may be monitored and controlled from a remote location.

Regarding claims 18 and 42, Sivertsen teaches substantially all the limitation

in claim 14, but fails to disclose using Joint Bi-level Image experts Group (JBIG)

compression for video processor circuit compresses video signals. However,

Coleman teaches using the JBIG lossless compression technique for

compressing video data [para. 0075]. It would have been obvious to a person of

ordinary skill in the art at the time the invention was made to incorporate

Coleman' teaching into Sivertsen's system for the purpose of saving network

bandwidth by using a lossless compression algorithm such as JBIG, thereby

providing a system of effectively digitizing and compressing the video output of a

computer such that it may be monitored and controlled from a remote location.

Regarding claims 19 and 43, Sivertsen teaches substantially all the limitation

in claim 15, but fails to disclose wherein said video processor circuit includes at

least one microprocessor for controlling at least one of a frame buffer circuit,

pixel pusher circuit and JBIG compression. However, Coleman teaches using a

microprocessor for controlling the frame buffer, pixel pusher and JBIG [FIG. 2

and para. 0118]. It would have been obvious to a person of ordinary skill in the

art at the time the invention was made to incorporate Coleman' teaching into

Sivertsen's system for the purpose of controlling video digitization/compression

by using a microprocessor, thereby providing a system of effectively digitizing

and compressing the video output of a computer such that it may be monitored and controlled from a remote location.

Regarding claims 21, Sivertsen teaches substantially all the limitation in claim 14, but fails to disclose wherein said video processor circuit includes at least one switch for outputting video signals. However, Coleman teaches compression and digitization of computer video through a video switch [para. 0021]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Coleman' teaching into Sivertsen's system for the purpose of allowing the transfer of video data over extended distances at increased speed of transfer by using a video switch, thereby providing a better remote monitoring/management system [para. 0021].

Regarding claims 44, Sivertsen teaches substantially all the limitation in claim 38, but fails to disclose wherein said video processor circuit includes at least one switch for outputting signals to an Ethernet port or a modem port. However, Coleman teaches compression and digitization of computer video through a video switch [para. 0021]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Coleman's teaching into Sivertsen's system for the purpose of allowing the transfer of video data over extended distances at increased speed of transfer by using a video switch, thereby providing a better remote monitoring/management system [para. 0021].

10. Claims 24 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Sivertsen as applied to claim 2, and in view of Kim et al. (US 2003/0055922

A1, hereinafter Kim).

Regarding claim 24, Sivertsen teaches substantially all the limitation in claim

2, but fails to disclose wherein said remote management unit includes reset

circuitry controllable by said workstation for resetting said remote management

unit. However, Kim teaches a reset circuitry provided for resetting previously

generated identifier values stored in the special function register [para. 0050]. It

would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate Kim's teaching into Sivertsen's system for the

purpose of controlling the remote management unit via a reset circuit, thereby

providing a better remote controlling/management system.

Regarding claim 48, Sivertsen teaches substantially all the limitation in claim

25, but fails to disclose wherein said apparatus includes a reset circuit for

resetting said apparatus. However, Kim teaches a reset circuitry provided for

resetting previously generated identifier values stored in the special function

register [para. 0050]. It would have been obvious to a person of ordinary skill in

the art at the time the invention was made to incorporate Kim's teaching into

Sivertsen's system for the purpose of controlling the remote management unit via

a reset circuit, thereby providing a better remote controlling/management system.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Lai whose telephone number is (571) 270-3236. The examiner can normally be reached on M-F 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Lai
27MAR2008

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Primary Examiner, Art Unit 2157